



In Reply Refer to
DTC Case TA 2002-03

United States Department of State

*Bureau of Political-Military Affairs
Directorate of Defense Trade Controls*

Washington, D.C. 20522-0112

To: Mr. Robert Sperling
a. i. Solutions Inc.
10001 Derekwood Ln, Suite 215
Lanham, MD 20706

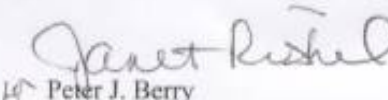
JUL 22 2003

YOUR LETTER DATED: May 16, 2003
AGREEMENT FOR: Technical Assistance
FOREIGN LICENSEES: Bristol Aerospace Ltd. - Canada
COMMODITY: Technical Data and Assistance Related to the SciSat - 1 and Pegasus Launch Vehicle

Dear Mr. Sperling:

The Department of State approves the request as identified subject to the limitations, provisos or other requirements stated below. The agreement may not enter into force until these requirements have been satisfied. Any request for extension must be submitted to the Department for approval no later than 60 days prior to the authorized expiration date.

Sincerely yours,


Peter J. Berry
Director, Office of Defense
Trade Controls Licensing

LIMITATIONS, PROVISOS AND OTHER REQUIREMENTS:

1. **This authorization expires December 31, 2006.**
2. If the agreement grants any rights to sublicense, prior to the release of any technical data, the sublicensee must execute a Non-Disclosure Agreement (NDA) incorporating all the provisions of the basic agreement which refer to the U.S. Government and the Department of State (i.e., 22 CFR 124.8 and/or 124.9). Copies of the executed NDAs, referencing this DTC case number, must be maintained by the applicant for five years from the expiration of the agreement.
3. No shipments of either hardware, software, technical data or defense services may take place against this agreement until such time as the agreement has been executed by all parties. In accordance with 22 CFR 124.4(a), a copy of the signed agreement, revised as may be required hereby, must be submitted to this office within 30 days from the date that it is signed. If a decision is made not to execute the approved agreement, you must so inform this office within 60 days.

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4. If the agreement is not executed within one year of the date of this approval, a written report as to the status of the agreement must be submitted to this office on an annual basis until the requirements of 22 CFR 124.4 or 22 CFR 124.5 have been satisfied.
5. Shipment of hardware against this agreement under the provisions of 22 CFR 123.16(b)(1) or by separate license (i.e., DSP-5) is **not** authorized. Hardware shipment may take place only after the Department of State approves an amendment to the agreement that provides a complete description of the hardware to be exported as well as a breakdown of the value of the agreement reflecting the data, services and the hardware.
6. This agreement **MUST BE** limited to provision of payload integration and test services as described in the applicant's SOW (Annex C to the application). The applicant **MUST** strike out references to providing "any or all" items from the Joint Mission Implementation Plan; only those items specifically called out in Annex C are authorized.
7. The applicant **MUST NOT** release detailed design data or concepts, design methodology, or manufacturing know-how for the Pegasus launch vehicle, components, and ground support equipment. Technical procedures (to include the launch vehicle countdown procedure) that are launch vehicle specific are **NOT** authorized for release.
8. The applicant **MUST NOT** provide any technical assistance to the consignee(s) which might assist the consignee(s) in the design, development, or enhancement of contemplated or existing space systems, launch facilities, or launch processes/operations.
9. All anomaly/problem resolution **MUST BE** accomplished strictly by the responsible parties. Collaborative failure analysis with foreign parties is **NOT** authorized. Anomaly/non-conformance/failure reports **MUST BE** limited to functional block diagrams, top-level descriptions, and drawings/schematics that **DO NOT** reveal detailed design. Data **MUST NOT** contain systems engineering processes, techniques, or methodologies.
10. The applicant's independent analyses **MUST BE** limited to results only and top-level descriptions. Design or technical analysis tools or methods of assessment (models, algorithms, databases, or software), which are not in the public domain **MUST NOT** be offered or released. In the case of independently checking the consignee's analyses, the applicant is authorized only to either concur or non-concur with the consignee's findings.
11. Information on USG systems, operations, limitations, or capabilities that is not already in the public domain **MUST NOT** be offered, discussed, or released.

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12. Launch failure analysis or investigation is NOT authorized under this license. In case of a launch failure, discussions or transfer of any technical data MUST BE the subject of a separate license submitted for Department of State approval.
13. There MUST BE NO unmonitored or unescorted access to the launch vehicle or any controlled equipment or technical data related to the launch, unless otherwise authorized by a license. Whenever foreign nationals are present, monitoring MUST BE on a 24-hour basis by U.S. participants throughout launch preparations, satellite mating/demating, test and checkout, launch, and debris recovery.
14. The applicant MUST maintain a library of released technical data subject to USG inspection and audit. The cost of DOD participation in any audit performed by the USG is reimbursable to the DOD.
15. a.i. Solutions must provide NASA HQ, Code ID/Paula Geisz, 300 E. Street, SW, Washington, DC 20546 with a copy of the State approval license and signed TAA.
16. NASA controlled technical data listed in this TAA is approved for transfer. Transfer of other NASA non-public domain technical data in support of this TAA requires an amendment and NASA approval.

EXHIBIT 1

Technical Assistance Agreement (TAA)

Technical Assistance Agreement for SciSat 1

This agreement is entered into between a. i. solutions, Inc., an entity incorporated in the state of Maryland with offices at 1001 Derekwood Lane, Suite 215, Lanham, MD 20706 and Bristol Aerospace Limited (Bristol), a Canadian company with offices located at 680 Berry Street, P.O. Box 874, Winnipeg, Manitoba, Canada R3C 2S4 and is effective upon the date of the last party to sign the agreement.

WHEREAS a. i. solutions, Inc. will provide technical assessment and mission qualification pre-launch services for Science Small Satellite 1 (SciSat 1) to Bristol under its Expendable Launch Vehicle Integrated Support (ELVIS) contract with Analex Corporation; and

WHEREAS Bristol will design, manufacture, produce, and assemble the SciSat 1 spacecraft;

NOW THEREFORE, the parties desire to enter into the Technical Assistance Agreement as follows:

1. The National Aeronautics and Space Administration (NASA) has negotiated a formal Memorandum of Understanding or MOU (ANNEX A) with the Canadian Space Agency that has the former agree to use its launch services contract to launch the Canadian-built SciSat 1; to support its operations once on orbit, checked out, and functioning; and to share the Earth science data that SciSat 1 will produce. The MOU calls for the signatories' centers and contractors to produce a detailed breakout of the tasks and responsibilities of the parties called a Joint Mission Implementation Plan or JMIP (ANNEX B) that shall be empowered by the MOU and have the force of an international agreement.

The Canadian Space Agency has contracted with Bristol Aerospace Limited, the SciSat 1 prime contractor, for the spacecraft and Bristol is integrating sensors and Canadian components for the Atmospheric Chemistry Experiment (ACE) sensors, a Fourier Transform Spectrometer (ACE-FTS) and MAESTRO, which stands for "Measurements of Aerosol Extinction in the Stratosphere and Troposphere Retrieved by Occultation" described in Exhibit 2; communications; spacecraft orientation, navigation, and control systems; and on-board logistics and components.

Analex Corporation has contracted with a. i. solutions, Inc. to provide the on-site payload-to-launch vehicle integration services under the ELVIS contract with NASA's Kennedy Space Center (which operates NASA's facilities at Vandenberg AFB, California.) a. i. solutions, Inc. role will be to provide rapid, accurate, and complete assessments of analytical items throughout the life cycle for SciSat and build cycle for the vehicle. a. i. solutions, Inc. shall perform a review of Launch Service Provider (LSP) provided documents in order to ensure prompt technical assessments of all relevant issues that arise during the integration process. Evaluation of these issues may require a. i. solutions, Inc. to perform an independent analysis in order to verify or better understand the Launch Service Provider (LSP) data. Documentation of evaluations and recommendations to NASA shall be such that NASA approval of analyses and/or direction to the Launch Service Provider (LSP) for corrective actions can be accomplished.

This Technical Assistance Agreement (TAA) is required so that a. i. solutions, Inc. can carry out its responsibilities. a. i. solutions, Inc. personnel will perform work on site at Vandenberg AFB, California to get the launch vehicle and SciSat 1 payload integrated and ready for launch, and will then assist with on-orbit checkout and other tasks required of it by the JMIP and the ELVIS contract Statement of Work or SOW (ANNEX C).

a. i. solutions, Inc. must be able to work closely with the U.S. launch services provider, Orbital Sciences Corporation (OSC), and with the Canadian payload contractor, Bristol. a. i. solutions, Inc. work with OSC and Bristol may involve any or all of the services, tasks, and technical data described in the JMIP and the ELVIS SOW. That is, a. i. solutions, Inc. must be able to help integrate the spacecraft payload with the launch vehicle, assure its interfaces with ground systems are optimal, solve engineering and technical problems on the spot, and perform other, related work with Bristol at Vandenberg.

Other firms will submit their own license or TAA applications if these prove to be necessary.

2. It is understood that this Technical Assistance Agreement is entered into as required under U.S. Government Regulations and as such, it is an independent agreement between the parties, the terms of which will prevail, notwithstanding any conflict or inconsistency that may be contained in other arrangements between the parties on the subject matter.

3. The parties agree to comply with all applicable sections of the International Traffic in Arms Regulations (ITAR) of the U.S. Department of State and that more particularly in accordance with such regulations the following conditions the following conditions apply to this agreement:

I. ITAR Section 124.7

(1) a. i. solutions, Inc. will work with the Canadian SciSat 1 payload contractor, Bristol. a. i. solutions, Inc. work with Bristol may involve any or all of the services, tasks, and technical data described in the JMIP and the ELVIS SOW. That is, a. i. solutions, Inc. must be able to help integrate the spacecraft payload with the launch vehicle, assure its interfaces with ground systems are optimal, solve engineering and technical problems on the spot, and perform other, related work with Bristol at Vandenberg.

(2) NASA has procured and will provide launch services on an OSC Pegasus XL-class vehicle and pre-launch engineering support. This includes providing data from the NASA's Total Irradiance Monitor (TIM) experiment, providing NASA engineering support for CSA spacecraft design and development (including mission design, associated Interface Control Documents or ICDs, payload processing and integration), identifying and implementing mission unique requirements, providing early orbit engineering support, and providing NASA oversight of SciSat 1 program as needed to satisfy requirements of the ICD. NASA and its contractors will jointly develop and verify ICDs on the interface between SciSat 1 and the launch vehicle. a. i. solutions, Inc. will support NASA with payload integration and testing (I&T) services on the launcher.

All communication will be through and to the primary Spacecraft Point of Contact (S/C POC), the Spacecraft Project Manager, and the primary Launch Services POC, the NASA Launch Services Project Manager (MIM). Neither agency will interact with the other's contractors without prior approval of the other. Interaction between the agencies' contractors is permissible in order to expedite joint technical issues as appropriate.

Meetings and telecons will take place as necessary to maintain control of respective areas of responsibility, on an as required basis. As a general rule, no contractors will be in attendance without prior approval, on an as needed basis.

Working Groups will be conducted in accordance with the ELVIS contract.

Reviews and Launch Site Activities will be on an as required basis, and parties will be invited to attend as appropriate.

Technical interface will include ICDs, Contamination control plans, Launch Site Test Plan, Launch Site Procedures, etc., as per the JMIP and the list of documents at EXHIBIT 3. No hardware will be shipped under this agreement. If it becomes necessary for a. i. solutions, Inc. to ship hardware to Bristol, a separate export license will be applied for.

(3) This TAA is to enter into effect on the date of the final signature and is remain in effect until March 3, 2006.

(4) Technical data will be shared with Bristol in Canada and with their employees in the U.S., mostly if not exclusively at Vandenberg Air Force Base, California and in its vicinity. a. i. solutions, Inc. will deliver on-site support services to Bristol's Canadian personnel at Vandenberg or in its vicinity.

II. ITAR Section 124.8

(1) "This agreement shall not enter into force, and shall not be amended or extended without the prior written approval of the Department of State of the U.S. Government."

(2) "This agreement is subject to all United States laws and regulations relating to exports and to all administrative acts of the U.S. Government pursuant to such laws and regulations."

(3) "The parties to this agreement agree that the obligations contained in this agreement shall not affect the performance of any obligations created by prior contracts or subcontracts which the parties may have individually or collectively with the U.S. Government."

(4) "No liability will be incurred by or attributed to the U.S. Government in connection with any possible infringement or privately owned patent or proprietary rights, either domestic or foreign, by reason of the U.S. Government's approval of this agreement."

(5) "The technical data or defense service exported from the United States in furtherance of this agreement and any defense article which may be produced or manufactured from such

technical data or defense service may not be transferred to a person in a third country or to a national of a third country except as specifically authorized in this agreement unless prior written approval of the Department of State has been obtained."

(6) "All provisions in this agreement which refer to the United States Government and the Department of State will remain binding on the parties after the termination of the agreement."

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed effective as of the day and year above provided.

Bristol Aerospace Limited

By: _____

(printed/typed name)

Title: _____

Date: _____

a.i. solutions, Inc.

By: 

ROBERT SPERLING
(printed/typed name)

Title: PRESIDENT/CEO

Date: 7/30/03

technical data or defense service may not be transferred to a person in a third country or to a national of a third country except as specifically authorized in this agreement unless prior written approval of the Department of State has been obtained."

(6) "All provisions in this agreement which refer to the United States Government and the Department of State will remain binding on the parties after the termination of the agreement."

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be executed effective as of the day and year above provided.

Bristol Aerospace Limited

a.i. solutions, Inc.

By: 

By: 

Gary J. Huedtke
(printed/typed name)

ROBERT SPERLING
(printed/typed name)

Title: Contracts Manager

Title: PRESIDENT/CEO

Date: 30 July '03

Date: 7/30/03